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EXAMINER	
CARTER, WILLIAM JOSEPH	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WERNER STUFFLE, ANDREAS HEIM, and
JOACHIM KLEINE

Appeal 2009-012065
Application 10/821,741
Technology Center 2800

Decided: September 29, 2009

Before CATHERINE Q. TIMM, JEFFREY T. SMITH, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision finally rejecting claims 1-10 (Final Office Action, mailed

December 22, 2005), the only claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).[1]

We AFFIRM.

STATEMENT OF THE CASE

Claim 1 is illustrative of the subject matter on appeal, and is reproduced from the Claims Appendix to the Appeal Brief ("App. Br."):

> 1. A speaker unit for use in a motor vehicle, comprising:
>
> at least one speaker having a chassis; and
>
> at least one light source, said at least one light source being installed in the chassis of a speaker outside of a diaphragm and at least one light source is electrically connected to a direct-current network on board the motor vehicle.

The Examiner relies on the following evidence to establish unpatentability (Examiner's Answer ("Ans."), mailed November 22, 2006):

Chun-Ying	US 5,964,519	October 12, 1999
Barnes	US 6,158,869	December 12, 2000
Quinones	US 6,283,414 B1	September 4, 2001
Kolpasky	US 6,545,418 B1	April 8, 2003

Appellants request review of the following rejections (App. Br. 6-7): claims 1 and 4-10 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Kolpasky and Barnes; claim 2 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Kolpasky and Barnes and further in view of Chun-Ying; and claim 3 under 35 U.S.C. § 103(a) as

[1] In rendering this decision we have considered Appellants' Brief dated August 24, 2006, and the Reply Brief dated January 30, 2007.

unpatentable over the combined teachings of Kolpasky and Barnes and further in view of Quinones.

Appellants have grouped arguments for claims 1 and 4-10 together. (See App. Br. generally). Thus, our initial discussion will be limited to independent claim 1. We will also address separately rejected and/or argued claims 2, 3, 5, and 6.

ISSUE

The following issue is presented for our review:

Have Appellants shown reversible error in the Examiner's determination that it would have been obvious to a person of ordinary skill in the art within the meaning §103 to install a light source in the chassis of a speaker outside of a diaphragm based on the combined teachings of Kolpasky and Barnes?

We answer this question in the negative.

FINDINGS OF FACT ("FF")

1. Kolpasky is directed to illuminating speaker systems for use in passenger vehicles. (col. 1, ll. 5-8). More specifically, Kolpasky is directed to providing a light source positioned within a flat-panel speaker for general lighting. (col. 2, ll. 9-14). Kolpasky discloses it is "desirable to provide an illuminating speaker assembly which eliminates the need for separate speaker and lighting fixtures." (col. 2, ll. 9-13).

2. Kolpasky discloses conventional speakers comprise a conical diaphragm which are sometimes bulky and require additional space to accommodate their placement. (col. 1, ll. 22-32).

3. Kolpasky discloses flat-panel, distributed-load loudspeakers (DML), were discovered in the early 1990s. Kolpasky discloses the

diaphragm of a DML is the panel that vibrates in a complex pattern over the entire surface of the speaker. (col. 1, ll. 38-48).

4. Kolpasky discloses the light emitting device is positioned within the flat-panel speaker for generating light which passes through the light permeable sound producing panel. (col. 2, ll. 26-28).

5. Barnes describes integrating lighting into a speaker grille assembly for use in passenger vehicles. (col. 1, ll. 34-40). Barnes discloses the speaker grille assembly comprises a light emitting device configured to illuminate a surface. (col. 2, ll. 41-56).

6. Barnes discloses the light emitting device is disposed beneath a lens attached to the grille which is utilized to create a dispersion of the light generated by the light emitting device. (col. 4, ll. 9-31). Barnes discloses the light emitting device can be arranged in various configurations that allow maximum amount of sound transmission. (col. 4, ll. 58-65).

7. The Examiner cited the Quinones and Chun-Ying references for describing various known methods for attaching light emitting devices. These methods include the screw and soldered attachment of light emitting devices. (Ans. 5-6).

8. Appellants contend that the Examiner has not established a prima facie case of obviousness because the references do not teach or suggest providing a light source in the chassis of a speaker outside of a diaphragm. (App. Br. 8). Appellants contend that "[t]here is nothing in the specification or drawings of Kolpasky '418 which teach or suggest at least one speaker in a chassis, nor does Kolpasky '418 teach or suggest a diaphragm member." Appellants contend that Barnes describes a speaker grille and does not describe a speaker diaphragm structure. (App. Br. 9).

PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). Therefore, we look to Appellants' Brief to show error in the proffered prima facie case. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

A claimed invention is unpatentable if the differences between it and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). The question to be asked is "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 417.

ANALYSIS

Appellants have not shown reversible error in the Examiner's determination that it would have been obvious to install a light source in the chassis of a speaker outside of a diaphragm based on the combined teachings of Kolpasky and Barnes. Kolpasky and Barnes both are directed to providing an illumination source with a speaker assembly. Both Kolpasky and Barnes utilize a light permeable surface (lens) for dispersing the illuminated light from the speaker assembly. Thus, the prior art suggested to

a person of ordinary skill in the art the location of light emitting devices and a speaker assembly below a light permeable surface. Kolpasky discloses a light emitting device is located on and around the speaker diaphragm. Barnes discloses the light emitting device is located below and around a speaker grille. A person of ordinary skill in the art would have reasonably expected that a light emitting device could have been located at any location in and around a speaker that did not interfere with the speaker operation. Further, a person of ordinary skill is a person of ordinary creativity, not an automaton. *KSR,* 550 U.S. at 421. One of ordinary skill in the art, using no more than ordinary creativity, would have appreciated that locating a light emitting device on a speaker chassis assembly would have been an appropriate location because it would not interfere with the operation of the speaker. The location of the light emitting device on the chassis would also allow the light to transmit through a light permeable surface utilized as a cover for the speaker device. This is further bolstered by the breadth of the term "the chassis" whose plain meaning would encompass *any* framework upon which the speaker is mounted.

Regarding claims 5 and 6, Appellants argued that it cannot be determined whether the light source of Kolpasky is perpendicular or parallel to the speaker axis and therefore the limitations of claims 5 and 6 are not taught. (App. Br. 10-11). Appellants' arguments are not persuasive for the reasons set forth by the Examiner. In particular the Examiner notes that Appellants have failed to define the reference axis. Notwithstanding the failure to describe a particular axis, Appellants have failed to establish that the location of the light source perpendicular or parallel to the axis would have been unobvious to a person of ordinary skill in the art. A person of

ordinary skill in the art would have had sufficient skill to select the appropriate angle for incorporating a light source in a speaker assembly. It is noted that Appellants have not asserted that the location of the light source on the speaker chassis achieves unexpected results.

Appellants generally contend that the dependent claims 2 and 3 are not made obvious in view of the teachings of Kolpasky, Barnes, and Chun-Ying or Quinones. (App. Br. 11-18). Appellants' contention is not persuasive because it does not identify an error in the Examiner's findings regarding the cited prior art and the determination that it would have been obvious to a person of ordinary skill in the art to combine the components as suggested by the Examiner.

Accordingly, we affirm the rejections of claims 1 and 4-10 under 35 U.S.C. § 103(a) over the combined teachings of Kolpasky and Barnes; and claim 2 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Kolpasky and Barnes and further in view of Chun-Ying; and claim 3 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Kolpasky and Barnes and further in view of Quinones.

CONCLUSION

The decision of the Examiner rejecting claims 1-10 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED

kmm

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